

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A component for a static micromixer in the form of a disk (1) comprising:

~~at least one or more inlet openings (2) for the introduction of configured to introduce at least one or more feed streams into a common linking channel (3) disposed in the plane of the disk and at least one or more outlet openings (4) configured to allow for the outflow of the feed stream into a mixing zone (5) disposed in the plane of the disk,~~

~~wherein the one or more inlet openings (2) is connected are in fluid communication with the one or more outlet openings (4) in a communicating manner through the common linking channel (3) disposed in the plane of the disk, and~~

~~wherein the common linking channel (3), immediately before opening into the mixing zone (5), is divided only by microstructure units (6) into two or more part channels (7) immediately before opening into the mixing zone (5), the widths of the part channels being in the millimeter to submillimeter range and being smaller than the width of the mixing zone (5).~~

2. (previously presented) The component as defined in claim 1, wherein the widths of the part channels (7) at their openings into the mixing zone are from 1 μm to 2 mm.

3. (currently amended) The component as defined in claim 1, wherein the ratio of the greatest width of the common linking channel (3) and/or of the width of the inlet opening (2) to the width of the part channels (7) is greater than 2.

4. (previously presented) The component as defined in claim 1, wherein the ratio of the length to the width of the part channels (7) is from 1:1 to 20:1.
5. (previously presented) The component as defined in claim 1, wherein the ratio of the width of the mixing zone (5) to the width of the part channels (7) is greater than 2.
6. (previously presented) The component as defined in claim 1, and further comprising at least one flow-through opening (9).
7. (currently amended) The component as defined in claim 6, wherein at least one of the inlet opening (2) or flow-through opening (9) or the mixing zone (5) is enclosed by the plane of the disk and that the common linking channel (3) is formed by an indentation.
8. (previously presented) The component as defined in claim 6, wherein at least one of the inlet opening (2) or flow-through opening (9) or the mixing zone (5) is disposed at the edge of the disk or as a recess at the edge of the disk.
9. (currently amended) The component as defined in claim 1, comprising at least two inlet openings (2), each connected with an outlet opening (4) in a communicating manner through a common linking channel (3) disposed in the plane of the disk for at least two different feed streams
10. (currently amended) The component as defined in claim 9, comprising two inlet openings (2) for two different feed streams, each inlet opening (2) being connected with the mixing zone (5) through one common linking channel (3) and the outlet openings (4) of the two common linking channels (3) being disposed opposite one another.
11. (previously presented) The component as defined in claim 1, wherein the outlet openings (4) are arranged on a circular line.

12. (previously presented) The component as defined in claim 1, and further comprising additional through-holes (12) and additional part channels (13) the latter being integrated into the microstructure units (6) and being separated from the part channels (7).

13. (currently amended) A static micromixer comprising a housing (11) with at least 2 fluid inlets (12a) and at least one fluid outlet (16) and at least two disks as defined in claim 1 arranged into a stack in the housing (11), wherein:

each of the at least two disks comprises one or more inlet openings (2) configured to introduce one or more feed streams into a common linking channel (3) disposed in the plane of the disk and one or more outlet openings (4) configured to allow outflow of the feed stream into a mixing zone (5) disposed in the plane of the disk,
wherein the one or more inlet openings (2) are in fluid communication with the one or more outlet openings (4) through the common linking channel (3) disposed in the plane of the disk,

wherein the common linking channel (3) is divided only by microstructure units (6) into two or more part channels (7) immediately before opening into the mixing zone (5), the widths of the part channels being in the millimeter to submillimeter range and being smaller than the width of the mixing zone (5) and

wherein the at least two disks (1) are superposed on one another so that the one or more inlet openings (2) form subsidiary channels for introducing a particular feed stream and the mixing zones (5) form a main channel for removing the product stream, and the main and subsidiary channels extend through the stack.

14. (currently amended) The micromixer as defined in claim 13, wherein the common linking channels (3) of the disks (1) are formed by indentations and that the common linking channels (3), before opening into the mixing zone (5), are divided into part channels (7) only by the microstructure units (6) provided on the disks.

15. (currently amended) The micromixer as defined in claim 13, wherein the common linking channels (3) of the disks (1) are formed by recesses in the disks (1), the disks (1)

being arranged as intermediate disks between a cover disk and a bottom disk, and that the common linking channels (3) before opening into the mixing zone (5) are divided into part channels (7) only by microstructure units (6) provided on the cover disks and/or bottom disks.

16. (previously presented) The micromixer as defined in claim 13, and further comprising an integrated heat exchanger.

17. (previously presented) A combustion reactor having a micromixer with at least one component as defined in claim 1, at least one first connection for introducing a combustible liquid or gaseous medium, and at least one second connection for introducing a combustion reaction-promoting medium.

18-23. (canceled)